Murphy Ridge B Rx Monitoring Report

UT 024 2823 JM RA68

May 12, 2003

The objectives of the Murphy Ridge B hazardous fuels reduction project was to apply prescribed fire to 123-247 of the 411 acres identified, leaving some unburned islands within the burn units, to reduce the sagebrush canopy cover to 15-35%, and to increase the canopy cover of the understory (grasses and forbs) to greater than 25% through natural regeneration.

After using GPS/GIS technology, we discovered that we burned 215 acres of the 411 target acres for a total of 52.3 percent. The burn went as planned, leaving a varied edge and multiple unburned islands within the burn units. Although the long-term effects on canopy cover changes will not be known for a few years, we believe that the burn will ultimately accomplish the objectives for canopy cover. Sagebrush cover was definitely reduced and new grasses and forbs began sprouting within two weeks of the burn. The following maps show in greater detail the burned acres and percentages for the project.

All fire behavior, fuel moisture, and weather elements were monitored during the ignition phase and the data is found in the monitoring section of the project folder. All prescription parameters were met on the day of the burn. Live fuel moisture for sagebrush at the time of the burn was 140%. This number was previously believed to be too high for sagebrush to readily ignite and carry fire. However, during the ignition phase, sagebrush did ignite and carry fairly well through the denser and decadent stands. This may be partly due to the high winds during ignition, but nevertheless sagebrush in Rich County will burn at moisture contents of 140%.

We learned that April is a perfect time of year to burn sagebrush in Rich County, Utah. Next time we burn there again we would like to burn just a few weeks earlier, before the new years' growth occurs. In future burns, we should try to burn at slightly less live fuel moisture in sagebrush, but given other weather conditions the sagebrush will burn at 140%. We also learned that a helicopter with a PSD machine would have made the ignition phase much easier and more efficient. The large size of the MMA in relation to each burn unit made the burn efficient from the perspective of the holding forces. The fire was allowed to move where it wanted without risk of escape. The time of year helped eliminate the need for mop-up and reduce patrol efforts. These practices should continue on future burns. We are extremely pleased with the manner in which the burn was planned, implemented, and objectives met.

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